

REMARKS

Applicants respectfully request consideration of Claims 1-10, 12-14, 17-33, 35-37 and 40-49 as amended. Claims 11, 15, 16, 34, 38 and 39 have been cancelled. Since the claims as amended are believed to patentably define over the art of record, and since Claims 47 and 48 are generic, a reinstatement of presently withdrawn Claims 4-10, 12, 19-22, 27-33, 35, 42-45 and 49 is respectfully solicited.

The combinations of the applied prior art, namely, Seyed-Yagoobi et al WO 00/71957, Itoh et al 3 970 905 and Knight 3 440 458, do not anticipate the claimed invention. More specifically, the Examiner's primary reference to Seyed-Yagoobi et al does teach the pumping of a liquid along the length of a heat transfer member, but does not teach the provision of "first surface alterations" having multiple electrical conductors each being received on a respective one of the first surface alterations. The Examiner must take note of the "liquid free context" in Itoh et al, namely a context that specifies that the "electric field curtain system" has a plurality of linear electrodes embedded in an "insulator" layer (or sheet which is obviously not a "heat transfer member) so that a silent discharge occurs which forms curved electric lines of force which are outwardly convex. The purpose of this configuration is to "repel" charged particles (see column 1, lines 33-36) outwardly from the surface of the sheet. The presence of a traveling A.C. electric field on the surface of the sheet causes the charged powder particles to be conveyed in a direction which is at a right angle to the electrodes along the plane of the electrode array. Itoh et al does not teach or even remotely suggest a configuring of the surfaces of the sheet to be subject to a liquid phase of a fluid. Furthermore, the purpose of the Itoh et al invention is totally different from the invention of Applicants as clearly expressed in Itoh et al at column 2, lines 38-64, namely, Itoh et al provides an array of electrodes embedded in

a sheet to specifically "repel" charged particles present in, for example, an electrostatic powder painting booth from the sheet. Itoh's sheet is an insulator and is not, therefore, and as stated above, a "heat transfer member". Furthermore, the Itoh sheet has no capability for use in a "thermal energy transfer system", namely, in an environment compatible with Applicants' claimed invention. Thus, where is the motivation to combine Seyed-Yagoobi et al and Itoh et al? The Examiner has not provided prima facie evidence that Itoh et al is even related to the teachings in Seyed-Yagoobi et al. The Examiner has incorrectly equated the pumping of gas and particles to the pumping of a liquid. Even if it is arguable that there is motivation to make the combination present in the respective references (which, it is respectfully submitted, there is not), to modify Seyed-Yagoobi et al to include the electrode array of Itoh et al would seemingly suggest to one of ordinary skill in the art that the "particles" would be "repelled" from the surface of the heat transfer member in the Seyed-Yagoobi et al reference. However, the invention of the present application does not want the liquid to be "repelled" from the surface of the heat transfer member. Instead, the invention requires the liquid to be moved only along the length of the heat transfer member. Itoh et al will not work in the presence of a liquid. Seyed-Yagoobi et al, on the other hand, will not work to "pump" gas and particles. Seyed-Yagoobi et al requires there to be an interface between a vapor phase and a liquid phase of a fluid and, therefore, will only work to "pump" a liquid phase of a fluid. All of the claims in this application contain language to emphasize a working relationship with a liquid.

Since Seyed-Yagoobi et al works only with a liquid and since Itoh et al works only with charged particles, these two references are incompatible with one another and the teachings cannot be combined to result in an effective teaching as envisioned by the makers of Title 35 USC 103. That is, there is no motivation in either Seyed-Yagoobi et al or Itoh et al

to combine their respective teachings due primarily to the totally incompatible nature of their respective teachings. Thus, Applicants respectfully request a reevaluation of the Examiner's rejection based on the combination of the Seyed-Yagoobi et al and Itoh et al references.

The Knight reference relates to an alternating current generator that uses a moving gas flowing in a channel to move ionized groups formed from the gas along the length of the channel to act on the coils wound around the outside of the channel. Electromagnetic flux caused by the ionized gas groups induces a potential in the coils which in turn are connected to a load. Since Knight does not teach or even remotely suggest a structure for pumping of any kind, especially of a liquid along a surface of the channel, the rationale or motivation for the Examiner's use of Knight in rejecting claims for this application is not understood. Knight will not work in a liquid environment and the surfaces of the conduit are not configured to be subjected to a liquid phase of a fluid. Nothing of the claimed invention relates to the generation of an alternating current. Reconsideration of the Examiner's rejection of claims based on the combination of Seyed-Yagoobi et al, Itoh et al and Knight is respectfully solicited.

An Information Disclosure Statement is enclosed and lists thereon all prior art that is of record in US Patent No. 6,409,975 and not already of record in this application. A copy of each of the references listed on the Form 1449 and not already of record in this application is enclosed for the Examiner's consideration. None of this additional prior art is deemed material to the patentability of the invention claimed in this application.

Further and favorable consideration of this application
is respectfully solicited.

Respectfully submitted,



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